

**Abstract**

Methods and apparatus for detecting wear in a liner. In one embodiment of the present invention, an electrically conductive wire is placed on or near the outside surface of the liner and the electrical resistance in the electrically conductive wire is measured to  
5 determine whether the wire has worn through. In another embodiment of the present invention, the temperature measured by a temperature measuring device, such as a thermocouple, is monitored over time to estimate wear in the liner.